



INTRODUCTION	38
PRESENTATION	39
CHARACTERISTICS	39
FRONT VIEW	40
REAR VIEW	41
INSTALLATION	43
OPENING THE UPS PACKAGING AND CHECKING THE CONTENTS	43
OPENING THE BATTERY BOX PACKAGING AND CHECKING THE CONTENTS	44
CHECKING THE EQUIPMENT	45
PLACING THE UPS	45
INSTALLING THE UPS	45
VERTICAL INSTALLATION OF THE DVD MODELS	45
VERTICAL INSTALLATION OF THE DVD MODELS WITH BATTERY BOX	46
POSITIONING THE FRONT PANEL LCD FOR DVD MODELS	47
INSTALLING DVR AND DVD MODELS IN A RACK CABINET	48
CONNECTION	49
CONNECTION TO THE NET/TEL PROTECTION DEVICE	49
POWERSHARE	49
INSTALLING THE EMERGENCY POWER OFF (EPO)	50
INSTALLING AN ADDITIONAL BATTERY BOX	50
START-UP/SHUTDOWN	51
START-UP FROM BATTERY	51
RECHARGING	51
SYSTEM DESCRIPTION	52
FRONT PANEL	52
LCD	52
LCD INDICATORS	54
FAULT SIGNALLING	56
SETTING THE VALUES ON THE FRONT PANEL LCD	56
ACOUSTIC SIGNALS	58
BATTERY TEST	58
COMMUNICATION PORT	59

RS232 INTERFACE	59
USB PORT	59
COMMUNICATION SOCKET	59
SOFTWARE	60
MONITORING AND CONTROL SOFTWARE	60
CONFIGURATION SOFTWARE	60
ALARMS AND INDICATORS	61
REPLACING THE BATTERY	62
DIALOG VISION TOWER	62
DIALOG VISION RACK	63
DIALOG VISION DUAL	64
SPECIFICATIONS	65

INTRODUCTION

Thank you for choosing our Uninterruptible Power Supply (UPS).

Our company is highly specialised in the development and production of uninterruptible power supplies (UPS). The UPS in this range are high quality products, designed and built with care to ensure optimum performance.

This equipment can be installed by anyone, subject to a **CAREFUL AND THOROUGH READING OF THIS MANUAL.**

This manual contains detailed instructions on how to use and install the UPS.

For information on using and getting the best performance from your UPS, this manual should be kept safely near the UPS and CONSULTED BEFORE TAKING ANY ACTION.

This manual describes the Dialog Vision UPS family (DVT, DVR, DVD) and their related battery box.

The Dialog Vision is a line-interactive UPS.

The UPS protects equipment connected to it from:

- a) mains power supply failures
- b) surges
- c) sags and brownouts

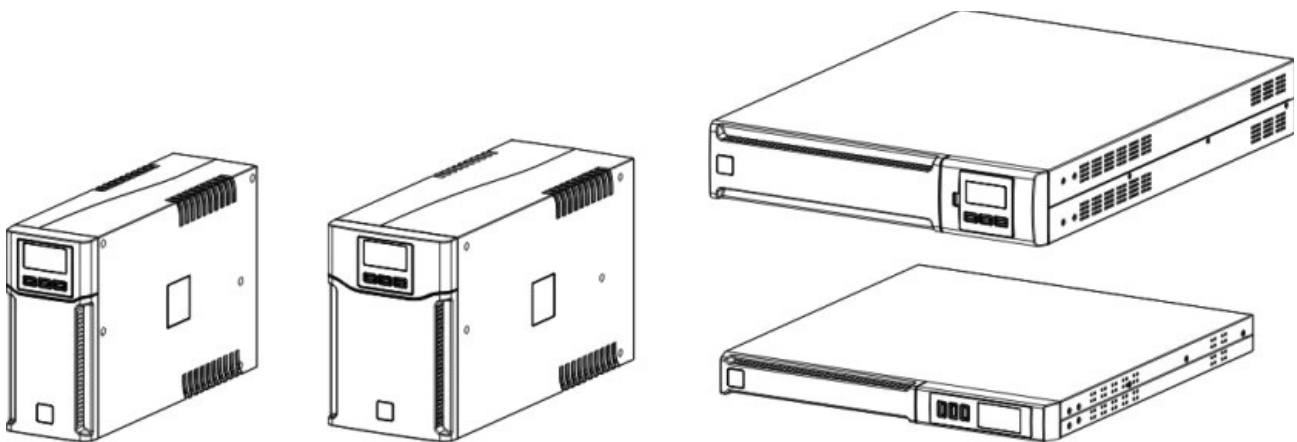
The UPS automatically corrects its output for small fluctuations in the mains power supply. In the event of larger fluctuations or a complete mains power supply failure, its output is powered from the inverter drawing energy from the internal battery set

The UPS can operate from a mains power supply even if there is no battery available. In this instance all other functions (AVR, start-up or shutdown and overload protection) are available.

CHARACTERISTICS

- Sinusoidal output voltage
- Front panel LCD
- Microprocessor control for high reliability
- High frequency technology
- Automatic correction of input voltage fluctuations by the built-in Automatic Voltage Regulator (AVR). The AVR, compensates for input voltage variations within a defined input voltage window and maintains a stable output, without resorting to batteries. Using the batteries less frequently ensures that they are at full capacity when they are actually needed and helps them to last longer.
- Selectable output range
- Cold start
- Integrated volt-free contacts/RS-232/USB port
- Back-up time can be increased by adding a battery box (DVD 2200/3000 models only)
- Overload, short-circuit and overheating protection
- Configurable as Rack or Tower (DVD models only)
- Models DVR and DVD suitable for installation in 19" rack cabinets

The various versions of the product are shown below:

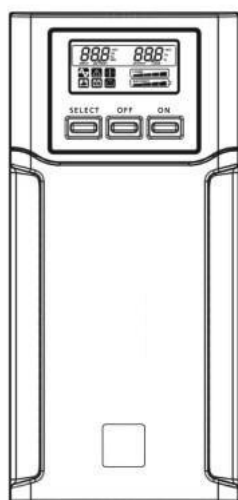


PRESENTATION

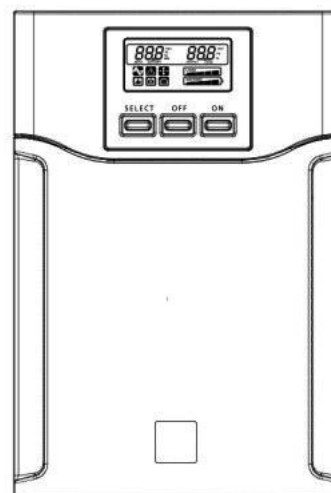
		Dialog Vision Tower					Dialog Vision Rack			Dialog Vision Dual		
		DVT 500	DVT 800	DVT 1100	DVT 1500	DVT 2000	DVR 500	DVR 800	DVR 1100	DVD 1500	DVD 2200	DVD 3000
Nominal power	[VA]	500	800	1100	1500	2000	500	800	1100	1500	2200	3000
Nominal power	[W]	350	540	740	1050	1350	350	540	740	1050	1540	2100
Nominal output voltage	[Vac]	200/208/220/230/240										
Dimensions LxHxD	[mm]	110X240X395			160X240X435		438X44X460 (19"x1Ux460)			438X88X582 (19"x2Ux582)		

FRONT VIEW

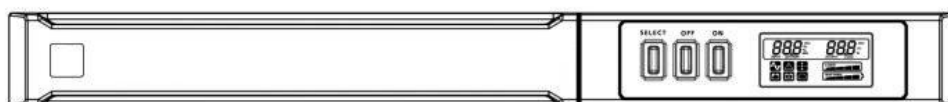
DVT 500/800/1100



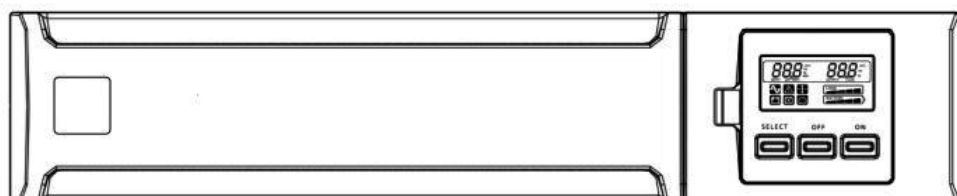
DVT 1500/2000



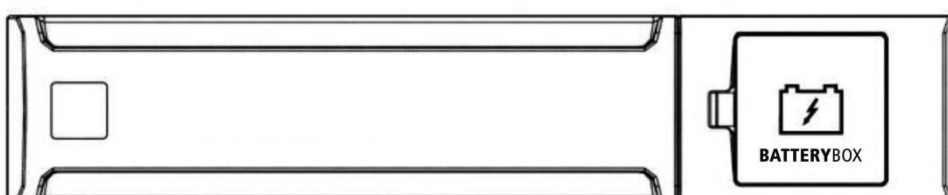
DVR 500/800/1100



DVD 1500/2200/3000

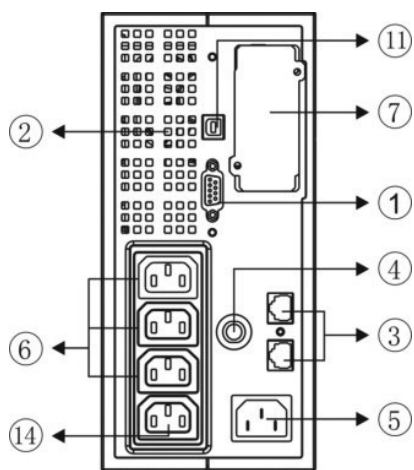


Dialog Vision Battery Box

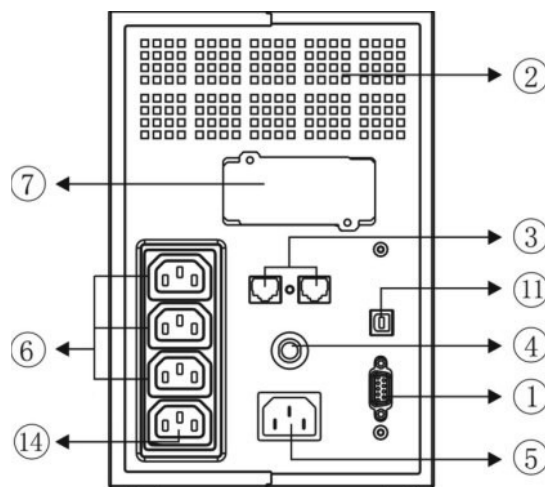


REAR VIEW

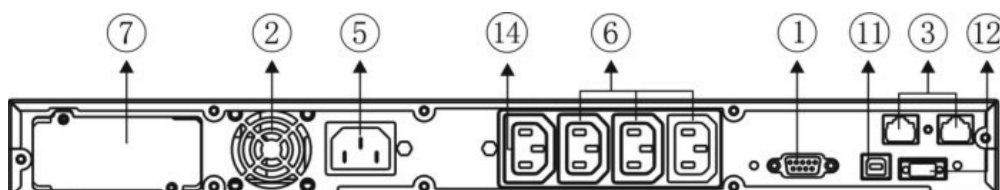
DVT 500/800/1100



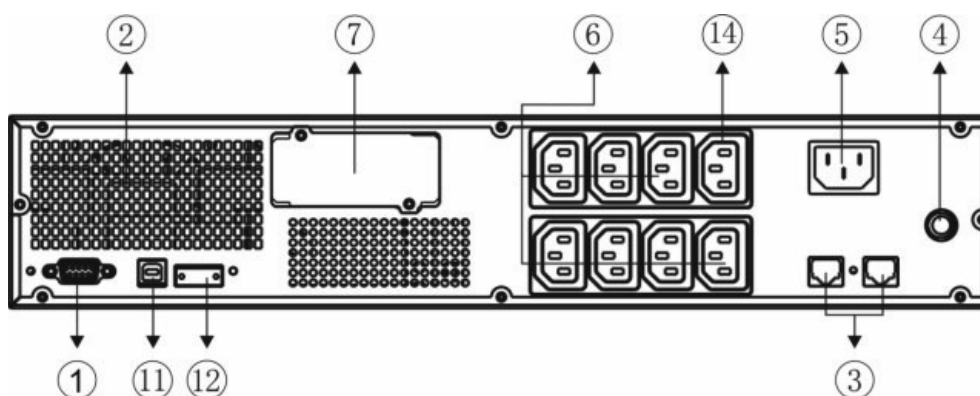
DVT 1500/2000



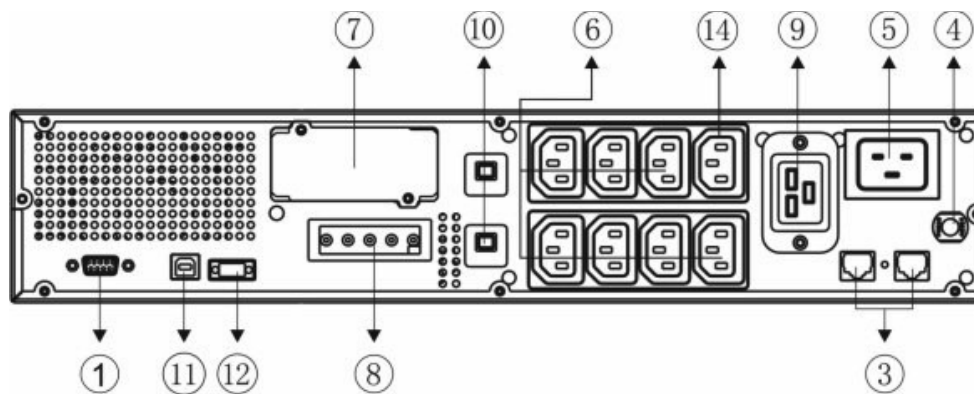
DVR 500/800/1100



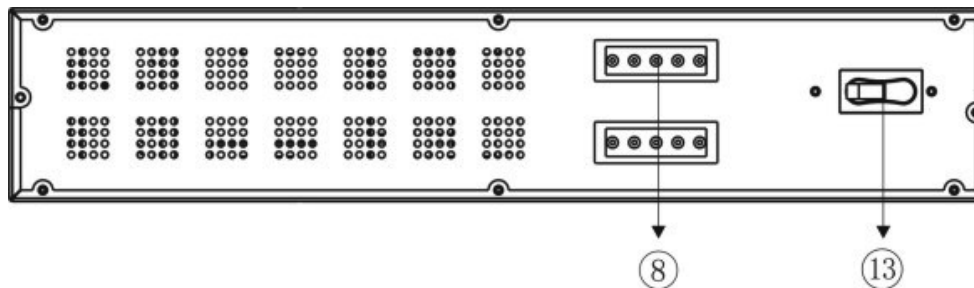
DVD 1500



DVD 2200/3000



Dialog Vision Battery Box

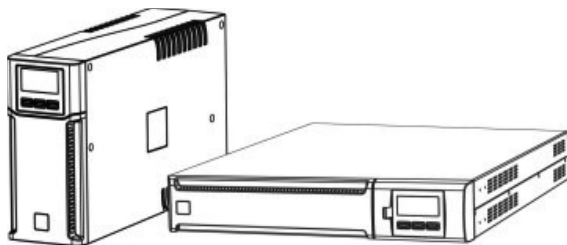


1. RS232 serial interface
2. Cooling fan
3. Net/Tel protection
4. Input thermal protection
5. IEC network input plug
6. IEC output plug (max 10A)
7. Expansion slots for interface cards
8. Battery expansion connector
9. IEC output plug (max 16A)
10. Output thermal protection
11. USB port
12. EPO
13. Fuse
14. Powershare socket

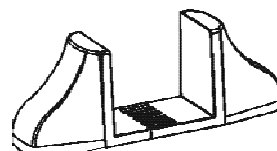
OPENING THE UPS PACKAGING AND CHECKING THE CONTENTS

After opening the packaging, check the contents.
The packaging should contain the following:

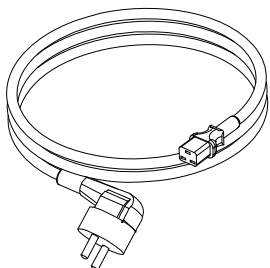
- ❑ UPS



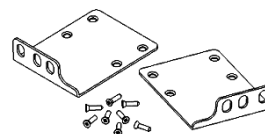
- ❑ Plastic supports (DVD model only)



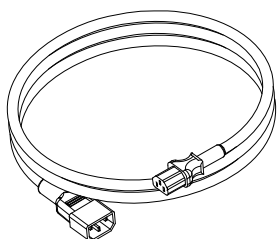
- ❑ IEC 10A power cable (IEC 16A for DVD models 2200/3000 only)



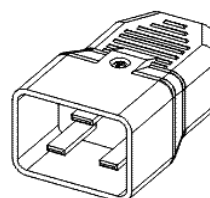
- ❑ Handles kit (models DVR and DVD only)



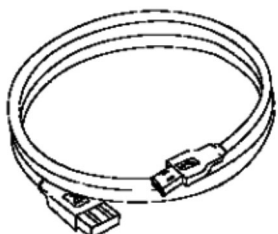
- ❑ 2 IEC 10A connection cables



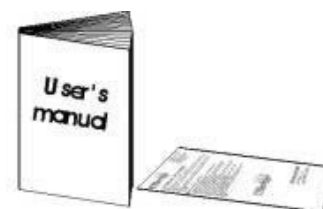
- ❑ IEC 16A loose plug (DVD 2200/3000 models only)



- ❑ USB cable



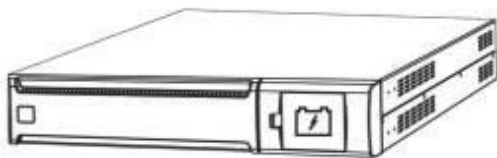
- ❑ User manual + Safety manual + Warranty card



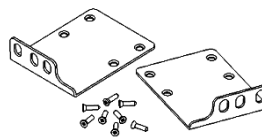
OPENING THE BATTERY BOX PACKAGING AND CHECKING THE CONTENTS

After opening the packaging, check the contents.
The packaging should contain the following:

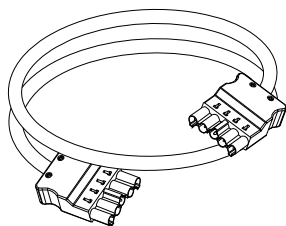
- ❑ Battery Box



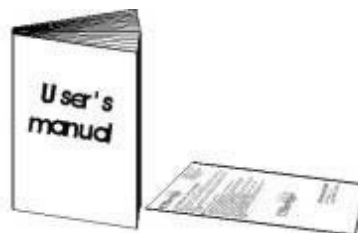
- ❑ Handles kit



- ❑ UPS – Battery Box connection cable



- ❑ User manual + Safety manual + Warranty card



- ❑ Extensions



CHECKING THE EQUIPMENT

Check the UPS carefully. If the UPS has been damaged during transit, keep the box and the packaging. Let the carrier and the supplier know immediately.

PLACING THE UPS

This UPS must have an adequate airflow. It must be placed in a clean indoor environment with no humidity, away from flammable liquids and direct sunlight. A space of at least 4" / 100 mm must be left around the UPS. The ambient temperature must be between 0°C and 40°C (32°F and 104°F), and the humidity level during operation must be between 20% and 80% (without condensation).

Warning: A long period of use in an environment with a temperature over 25°C will shorten battery life. The UPS should be placed at least 20 cm away from a monitor in order to avoid interference.

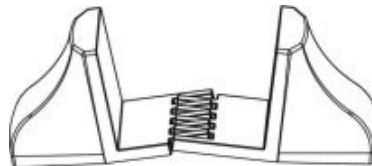
INSTALLING THE UPS

The Dialog Vision family comprises: DVT models designed for vertical installation and the DVR models which must be installed in 19" rack cabinets. The DVD models can be positioned vertically (using the supports) or installed in 19" rack cabinets.

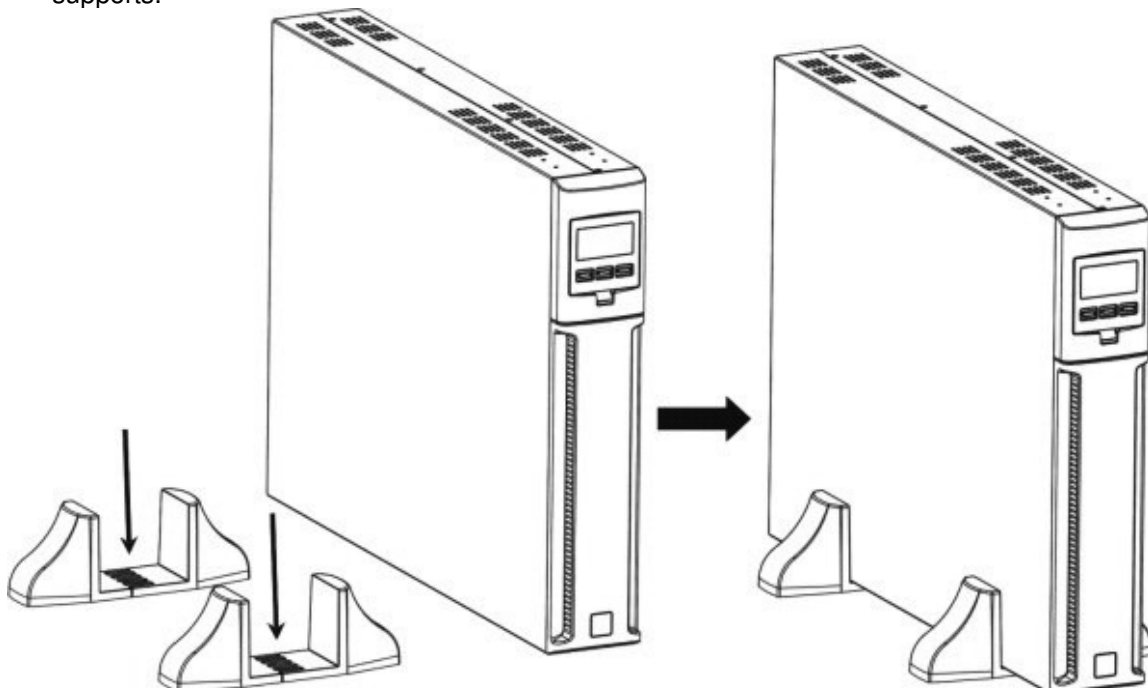
VERTICAL INSTALLATION OF THE DVD MODELS

The DVD models are provided with supports to stabilise the UPS when it is positioned vertically.

1. Assemble the supports as shown in the figure.

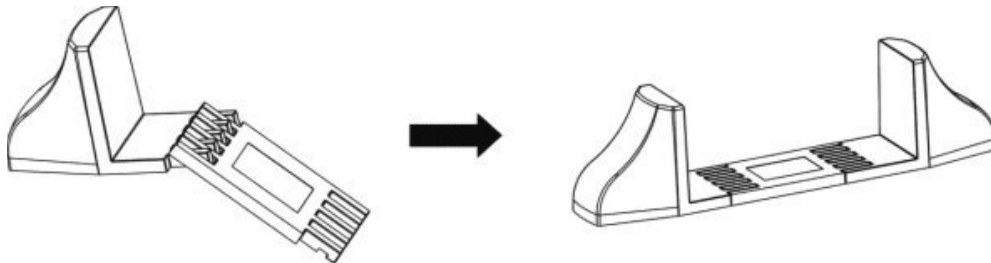


2. Put the UPS in a vertical position and place the supports close to it. Carefully insert the UPS in the two supports.

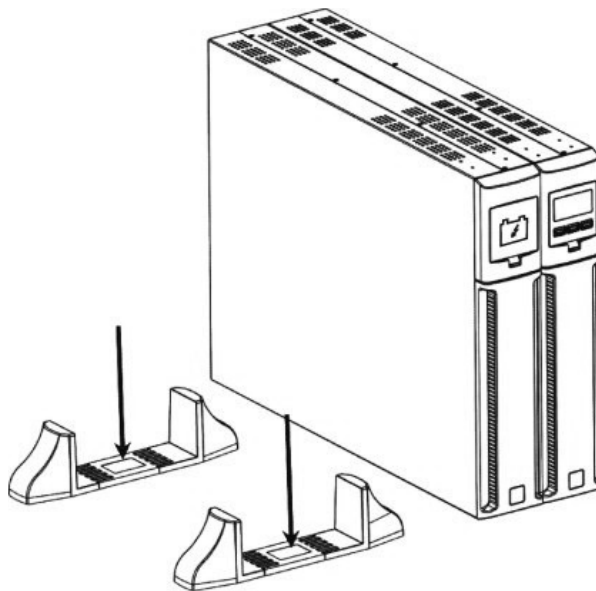


VERTICAL INSTALLATION OF THE DVD MODELS WITH BATTERY BOX

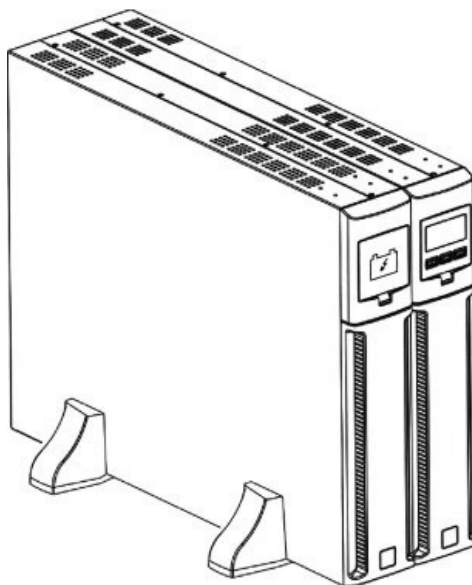
1. Assemble the supports and the extension as shown in the figure.



2. Put the UPS and the battery box in a vertical position and place the two supports close to them.



3. Carefully insert the UPS and the battery box in the two supports.

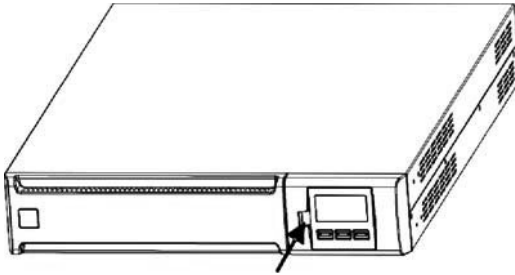


POSITIONING THE FRONT PANEL LCD FOR DVD MODELS

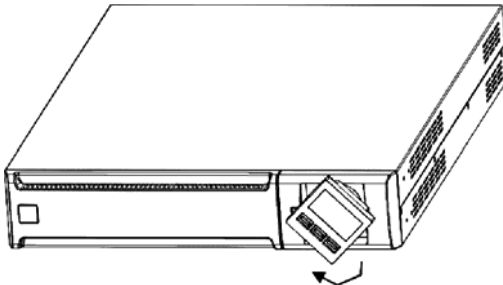
The DVD LCD can be rotated to suit the kind of installation (rack or tower). The information below explains how to rotate the display:

A. From Rack to Tower

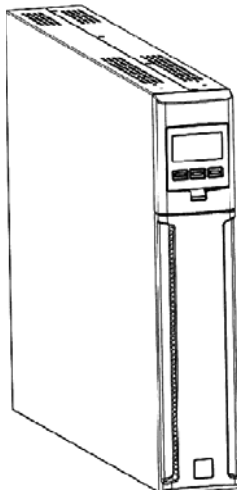
1. Place the UPS flat and press the key shown



2. Rotate the LCD display 90°

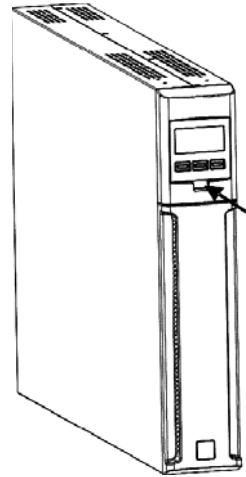


3. Reinsert the display in its housing

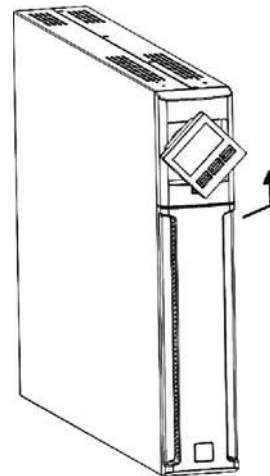


B. From Tower to Rack

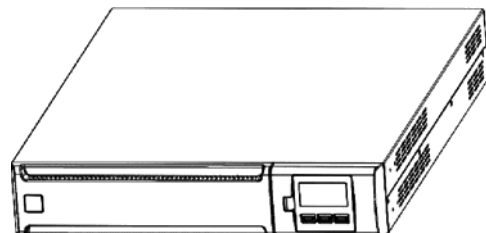
1. Place the UPS flat and press the key shown



2. Rotate the LCD display 90°



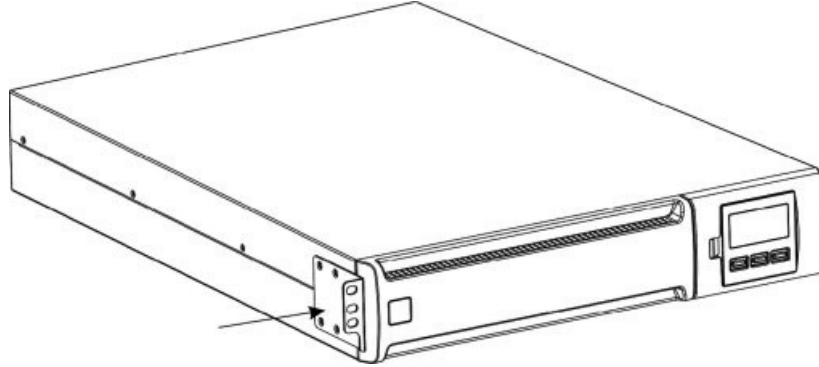
3. Reinsert the display in its housing



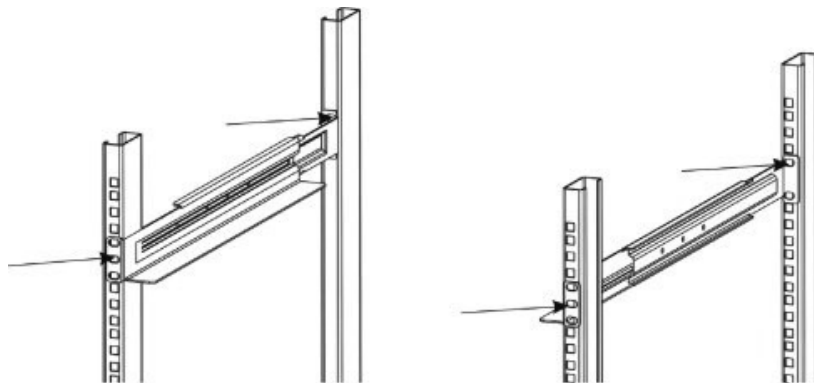
INSTALLING DVR AND DVD MODELS IN A RACK CABINET

The DVR and DVD models can be installed in a 19" rack cabinet. The installation procedure is described below:

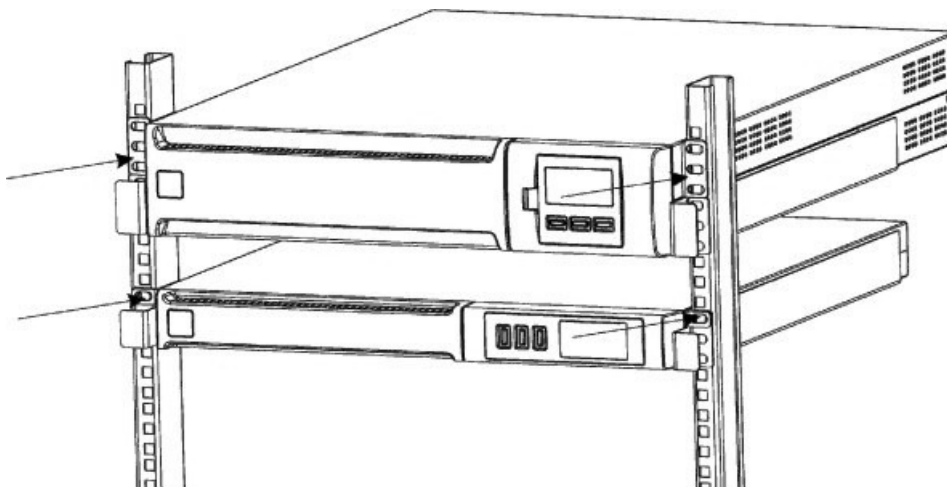
1. Align and screw the handles onto the sides of the UPS.



2. Secure the guides onto the rack cabinet supports with the screws.

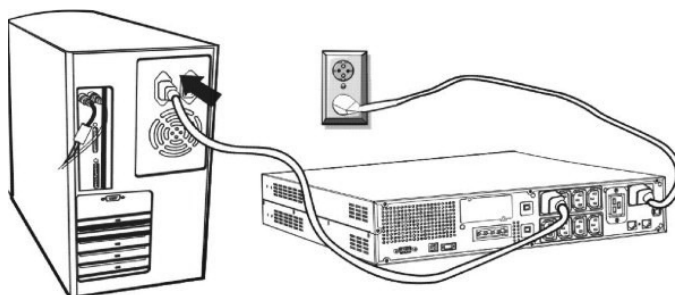


3. Insert the UPS on the mounted guides and secure it to the cabinet using the screws.



CONNECTION

Connect the UPS to the mains power supply using the input supply cable. Connect the loads to the UPS sockets with the IEC-IEC cables or with a similar cable with a maximum length of 10 metres.



Note: do not connect loads that draw more than 10A, to the 10A IEC sockets. These loads can only be connected to the 16A IEC socket (where fitted).

CONNECTION TO THE NET/TEL PROTECTION DEVICE

A telephone/modem/network line can be connected to the modular RJ-45/RJ-11 connectors (located on the rear of the UPS) to protect against surge voltages. A telephone extension cable is required for this type of connection.

N.B.: This connection is optional. The Net/Tel protection is active even when the UPS is switched off or disconnected from mains power.

Warning: The device that protects against overvoltages on the telephone line may not work if it is not installed correctly. Ensure that the telephone line from the wall is inserted in the connector marked "IN" and that the cable of the device to be protected (telephone, modem, network card, etc.) is inserted in the connector marked "OUT".

N.B.: This protection device limits the effects of an overvoltage but does not guarantee absolute protection.

POWERSHARE

All the models of the Dialog Vision range are provided with an auxiliary output socket that can be configured via UPSTools. The Powershare socket can be configured in five different ways (refer to the UPSTools manual) as described below:

- ☐ **ALWAYS:** (standard configuration), the Powershare socket is always active; the load is powered, as if it were connected to one of the other output sockets.
- ☐ **BATTERY LOW:** the Powershare socket is normally active, but after 10 seconds from the start of the battery low signal, the Powershare socket is deactivated.
- ☐ **BATTERY WORKING:** the Powershare socket is active if the UPS is powered from the mains power supply, if the UPS is working in battery mode; the Powershare socket is deactivated.
- ☐ **BATTERY WORKING DELAYED:** the Powershare socket is always active, but after 1 minute of operation in battery mode or after 10 seconds in a battery low condition, the Powershare socket is deactivated.
- ☐ **BUZZER:** when the UPS is working in battery mode, the Powershare socket is activated and deactivated in the same way as the buzzer.

INSTALLING THE EMERGENCY POWER OFF (EPO)

The DVR and DVD range are provided with an EPO contact. This allows the UPS to be shut down immediately without having to wait for the shutdown procedure to be completed.

Note: When the UPS has been switched off using this input, it is not possible to switch the device back on again (even if the EPO contact is closed) until the UPS has been restarted manually. If the EPO contact is open, the UPS will not restart even if the ON key is pressed.

Follow the procedure below to install the EPO switch:

1. Check that the UPS is switched off.
2. Disconnect the EPO input terminal from the UPS.
3. Remove the jumper fixed to the terminal.
4. Apply a volt-free contact signal (isolated and normally closed V_{max} : 60 Vdc, 30 Vac RMS; I_{max} : 20mA), between Pin 1 and 2 of the terminal, using an unshielded wire of diameter 18-22 AWG ($0.75\text{ mm}^2 - 0.3\text{ mm}^2$).
5. Reconnect the terminal to the EPO input.
6. Ensure that the switch connected to the EPO contact cannot be activated by a device powered by the UPS.
7. Connect the UPS to the mains power supply and switch it on using the ON key.
8. Activate the EPO contact by means of the external switch to ensure the UPS shuts down.
9. Deactivate the EPO contact by means of the external switch and restart the UPS.

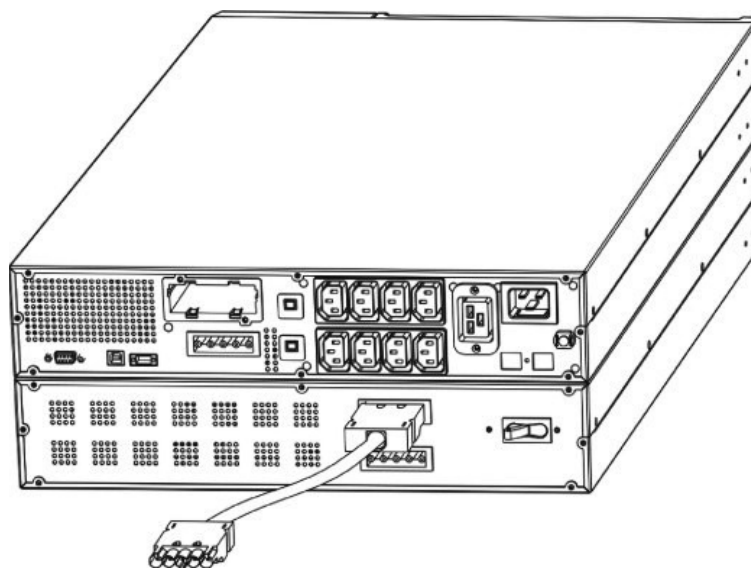
INSTALLING AN ADDITIONAL BATTERY BOX

The DVD 2200 and DVD 3000 models are provided with a connector that allows an external battery box to be connected to the UPS to increase the back-up time available.

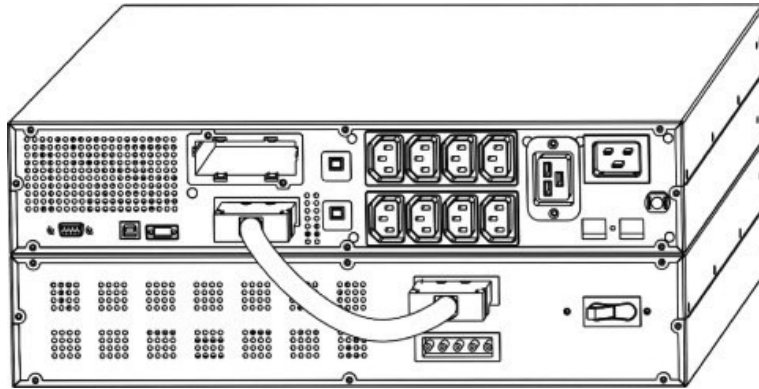
Note: When connecting additional batteries a small spark may occur within the connector when the cable is connected.

Follow the procedure below to install the additional battery box.

1. Connect the cable to the battery connector at the back of the battery box.



2. Then connect the other end of the cable to the battery connector at the back of the UPS.



3. To add further battery boxes (up to a total maximum capacity of 120Ah), repeat the previous steps.

Note: When a battery box is installed, the UPS must be configured for the correct total capacity of the batteries (using UPSTools software) in order to calculate correctly the remaining back-up time and the battery charge. The configuration must be done with the UPS switched on or in stand-by mode.

For this kind of battery box the value to be added is “9”[Ah].

For the DVD 2200/3000 models whose total battery capacity has not been increased, the recharge current is 2 A. After setting the nominal battery capacity with the UPSTools software, if the value set is greater than 14 Ah, the recharge current automatically increases to 6 A.

START-UP/SHUTDOWN

To start up and shut down the UPS, press the ON and OFF switch for at least three seconds.

Starting up for the first time: after about 30 seconds, check that the UPS is working properly:

1. Simulate a mains power supply failure by unplugging the input power cable
2. The load must continue to receive power, the battery mode indicator should light up and the UPS should beep every 4 seconds.
3. Reconnect the power cable. Normal mains power operation should be restored.

START-UP FROM BATTERY

The UPS can be switched on even when no mains power supply is available and the battery is fully charged. Just press ON for at least three seconds to start the UPS.

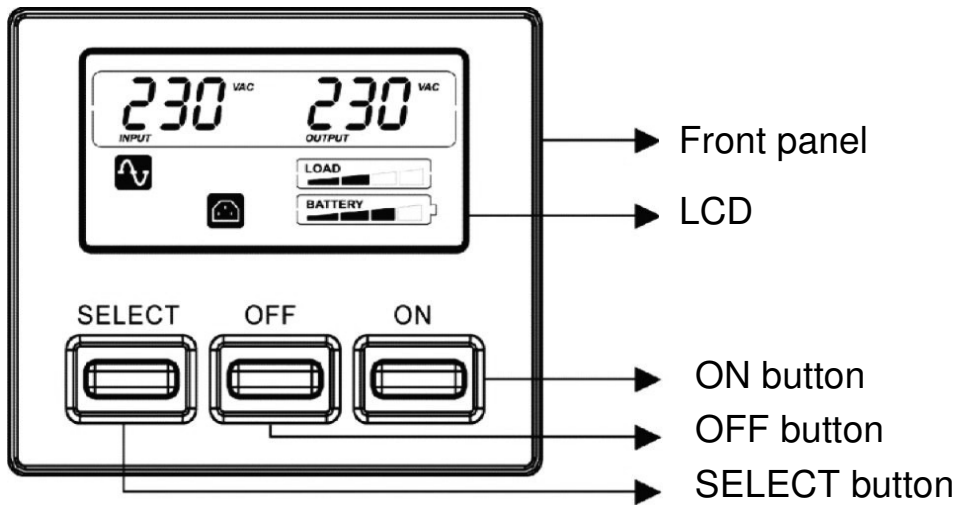
RECHARGING

The UPS is supplied with fully charged batteries. During shipping, however, they can lose some of their charge and so the batteries must be recharged before use. Connect the UPS to the mains power supply and leave the UPS to recharge for at least 8 hours before discharging it.

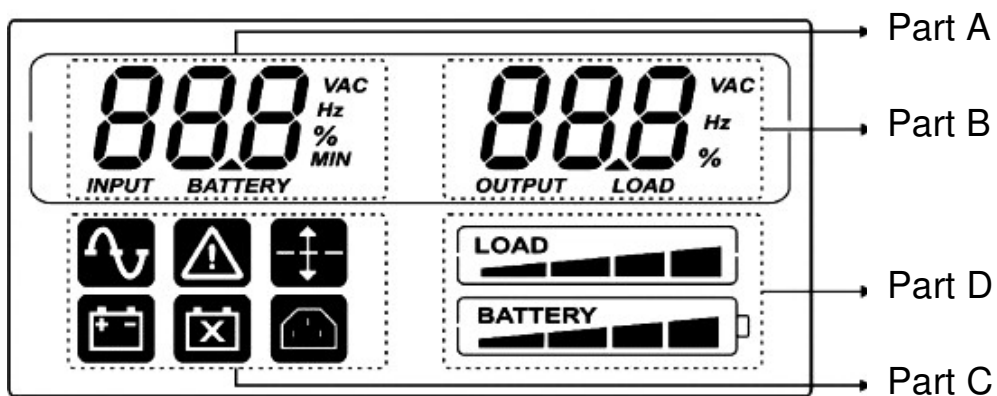
SYSTEM DESCRIPTION

FRONT PANEL

The front panel consists of a display and “ON”, “OFF” and “SELECT” keys.



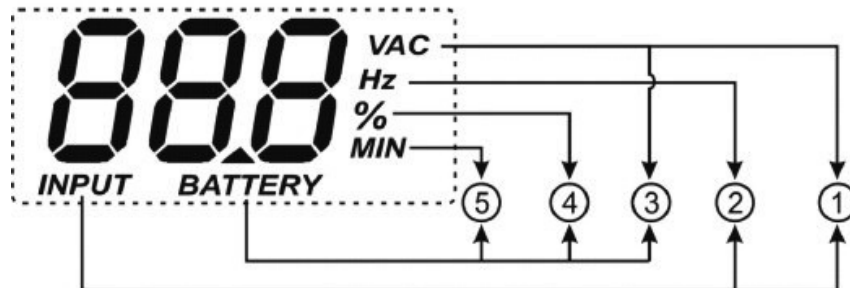
LCD



The display can show two values at the same time, which can be selected from those available in part A and part B of the display.

Detailed description for Part A (on the left):

Part A

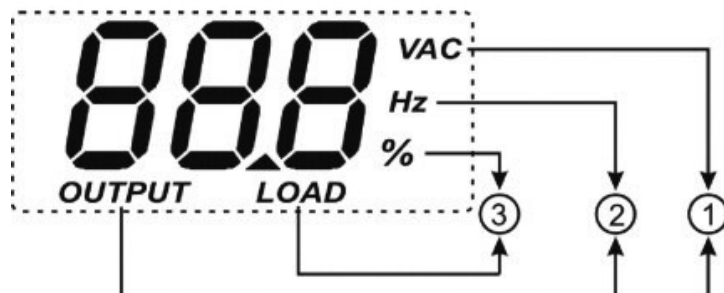


- ① INPUT-VAC: input voltage (unit: Volt)
- ② INPUT-Hz: input frequency (unit: Hz)
- ③ BATTERY-V: total battery voltage (unit: Volt)
- ④ BATTERY-%: estimated back-up time (as a percentage) of the battery charge
- ⑤ BATTERY-MIN: estimated battery back-up time (unit: Minutes)

Note: The estimated back-up time in minutes is also provided when the UPS is working in mains mode.

Detailed description for Part B (on the right):

Part B



- ① OUTPUT-VAC: output voltage (unit: Volt)
- ② OUTPUT-Hz: output frequency (unit: Hz)
- ③ LOAD-%: load applied in output (as a percentage)

Part C and Part D show the status of the UPS (see section “LCD indicators” for details).

SYSTEM DESCRIPTION

LCD INDICATORS

This chapter provides a detailed description of all the display indicators.

ICON	STATE	DESCRIPTION
	Steady on	Indicates a fault (see table 3)
	Flashing	The UPS is in stand-by mode
	Steady on	The UPS is operating in mains mode
	Steady on	The UPS is operating in battery mode. In this state it will beep at regular 4-second intervals.
	Flashing	When operating in battery mode, the UPS signals that it is about to switch off due to end of discharge. In this state it beeps at regular 1-second intervals.
	Steady on	Indicates that the battery is faulty
	Steady on	The AVR function is active
	Steady on	The Powershare socket is active
	Active	Represents the estimated percentage of battery charge (see table 1)
	Active	Indicates the percentage of load applied to the UPS in relation to the nominal value (see table 2)
	Flashing	The UPS is in an overload condition

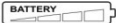
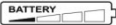
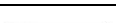
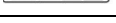
Table 1	
Battery level	
	0%~20%
	20%~40%
	40%~60%
	60%~80%
	80%~100%

Table 2	
Applied load level	
	0~5%
	5~25%
	25%~50%
	50%~75%
	75%~102%
 flashing	>102%

In the event of an overload, the UPS will continue to power the load for a set period of time. The UPS will emit an alarm to signal that it can no longer support the overload (a beep at regular one-second intervals). Once the load has been reduced to within the 100% threshold, the UPS will return to normal operating mode.

Warning: If the overload is too high, the protection device will be activated and the UPS will shut down. To restore normal operation following failure due to an overload (continuous beep and load not powered), reduce the load so that it falls within the 100% threshold. Hold the OFF button down until the continuous beep stops and then release it. Wait until the UPS has completely shut down and then switch on again using the ON key.

FAULT SIGNALLING

All Dialog Vision models are provided with a self-check system that can indicate any faults or failures on the display. The symbols are shown below, together with a description and the possible solutions to rectify the problem.

Table 3: List of faults		
Symbols in Part A of the LCD	Description	Possible solution
F01	The UPS has failed due to an overload	Check the level on the display and reduce the load
F02	The UPS has overheated	1. Ensure that the ambient temperature is lower than 40°C 2. Switch the UPS off and wait until it cools down
F03	The UPS output has short-circuited	1. Disconnect all loads and ensure that there is nothing short-circuiting the output 2. Ensure that the loads are not short-circuiting internally
F04	Fan failure	Contact the reseller to check or replace the fan
F05	Output voltage out of range (inverter failure)	Contact the reseller
F06	UPS internal error	Contact the reseller

SETTING THE VALUES ON THE FRONT PANEL LCD

The LCD has two parts, left (Part A) and right (Part B). The left side displays the following parameters: “Input voltage”, “Input frequency”, “Voltage battery”, “Capacity as a percentage of battery” and “Estimated back-up time in minutes”.

The parameters available on the right side are: “Output voltage”, “Output frequency” and “Load as a percentage”.

The displayed values can be set using the ON and SELECT keys.

The “SELECT” key is used to choose the field to be set, while the ON key is used to confirm the selection.

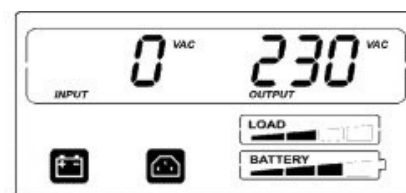
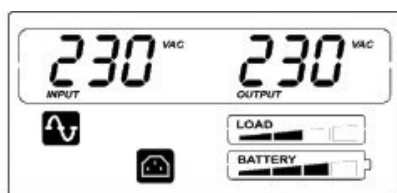
The first time the “SELECT” key is pressed (for 3 seconds, then the keys should be pressed for about 1 second), the left part will start to flash. The second time this key is pressed the right part will start to flash, and if pressed for a third time nothing will flash.

When a field is flashing press “ON” to confirm.

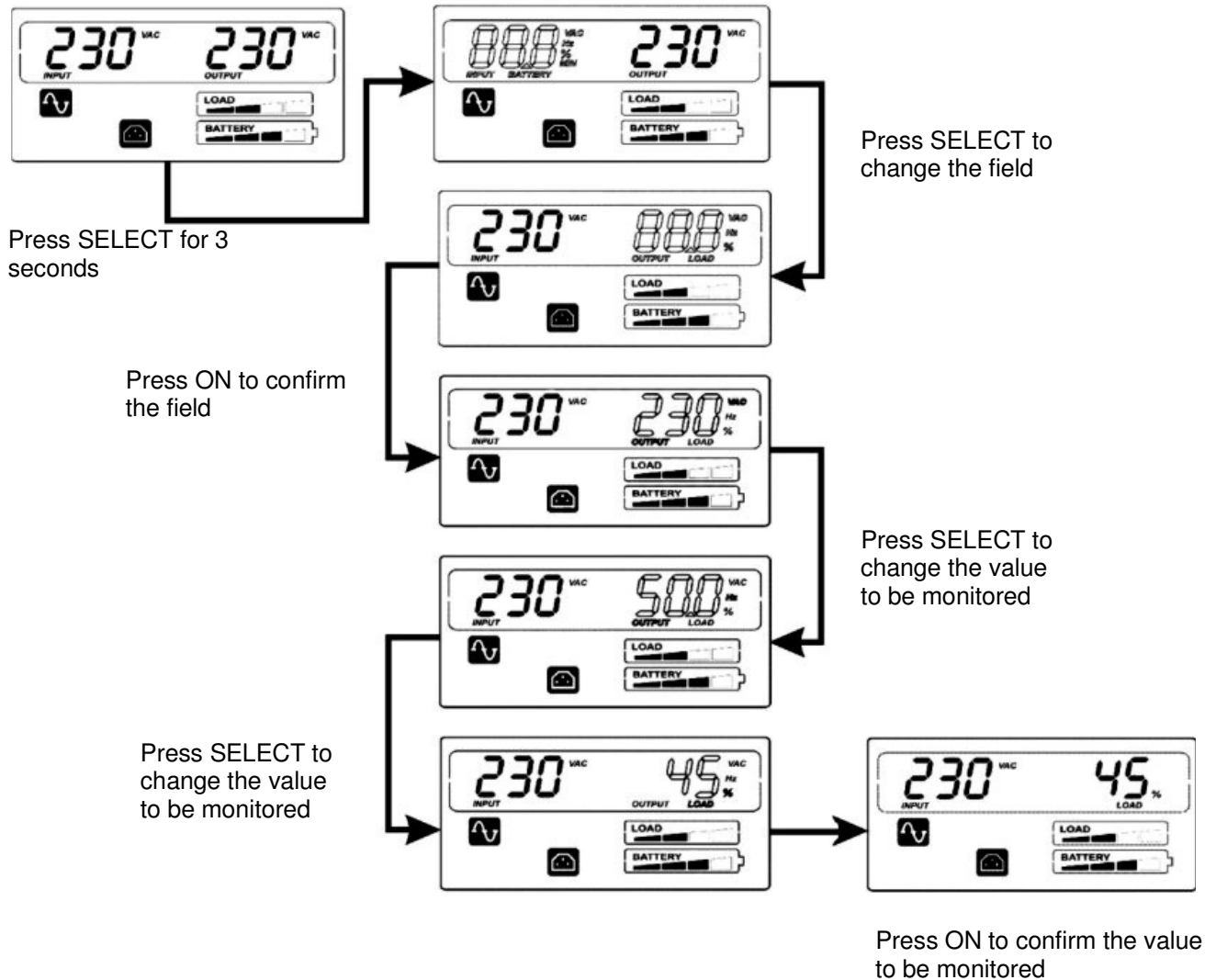
Press “SELECT” to choose the required value.

Press “ON” to confirm the selected value.

When the UPS is on, in both mains and battery mode, it will show the following default values respectively:

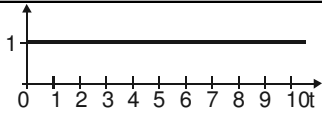
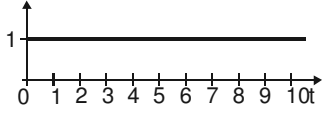
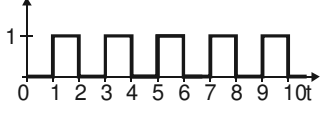
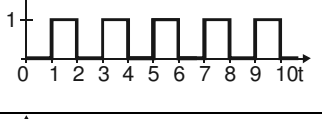
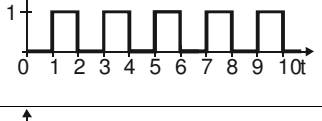
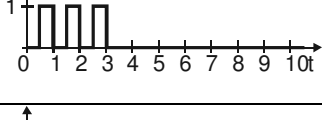
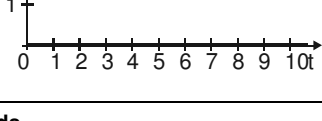


Shown below is an example of the procedure to set the display to show the “Input voltage” on the left side of the display (Part A) and “Capacity as a percentage of the battery” on the right side (Part B).
Configuration example:



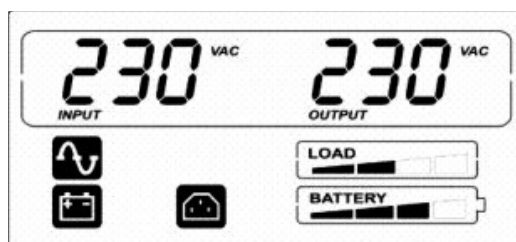
SYSTEM DESCRIPTION

ACOUSTIC SIGNALS

DESCRIPTION	BEEP	BUZZER STATUS
a) Fault (e.g. due to overheating or fan failure)	Continuous	
b) Battery overcharged	Continuous	
c) Overload	Intermittent (1s on/1s off)	
d) UPS in battery mode	Intermittent (1s on/4s off)	
e) UPS in battery mode with battery flat	Intermittent (1s on/1s off)	
f) Battery disconnected after the battery test	Intermittent (1s on/1s off)	
g) The UPS is performing the battery test	Intermittent for 3 times (0.5s on/0.5s off)	
h) If none of the events in the previous points has occurred	Not active	
In battery mode the acoustic signal can be silenced by holding the “ON” key down for 3 seconds. This will only remain inhibited if none of the events in points b), e) and f) has occurred.		

BATTERY TEST

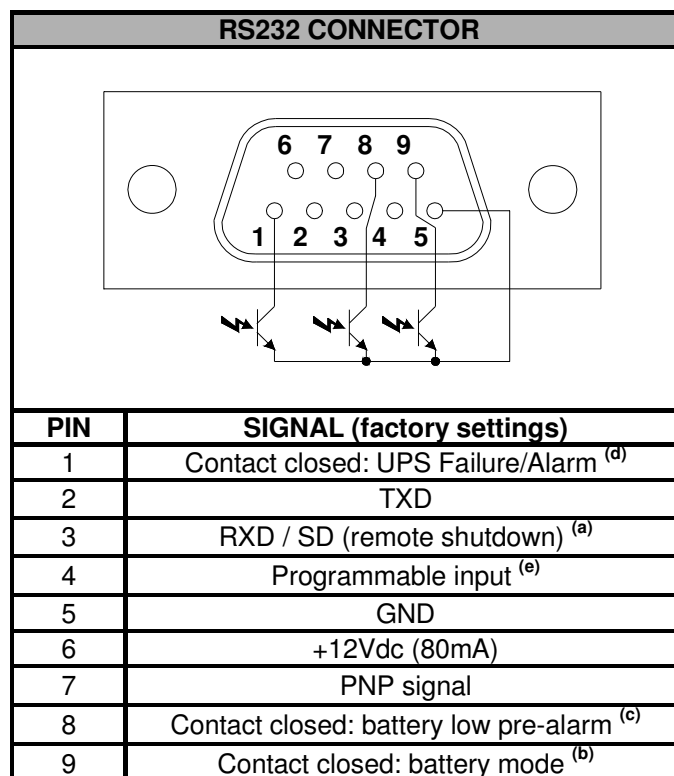
In mains mode, hold the “ON” key down for more than 5 seconds (a beep will sound) to run a battery test lasting 5 seconds (default time). During the battery test, the “Line” and “Battery function” icons will both light up.



The battery test process

RS232 INTERFACE

With the RS232 serial interface the UPS can be connected to a PC (COM interface) by means of a pin-to-pin serial cable (if a different cable is used, this must be of the pin-to-pin type with a maximum length of 3 metres). The interface (with factory settings) has the following characteristics:



- a) SD: With the UPS in battery mode, if +5~15Vdc is applied for at least 20 seconds (between PIN 3 and PIN 5), the UPS will shut down completely
- b) B.W.: contact closed in battery mode (values max:25mA +35Vdc Vce sat max: 1.5V @ 25mA)
- c) B.L.: contact closed when battery is flat (values max:25mA +35Vdc Vce sat max: 1.5V @ 25mA)
- d) UPS Failure/Alarm: contact closed in the event of failure or signalling of alarms by the UPS (maximum values: 25mA +35Vdc Vce sat max: 1.5V @ 25mA)
- e) Input programmable via RS232: +(5 - 15) Vdc

USB PORT

The USB port is used to establish communication between the UPS and a PC. When the communication cable is installed, the management software (*Powershield³*) can exchange information with the UPS. The software can provide detailed information on the UPS operating status. In the event of a mains power supply failure, the software can save the data and shut down the computer.

Note: The USB port and the RS232 serial interface, located on the rear of the UPS, cannot be used at the same time, as the use of one excludes the other.

COMMUNICATION SOCKET

All UPS are provided with an expansion slot for optional communication cards so that the unit is compatible with the main communication standards.

Some examples:

- Serial port duplexer
- Ethernet network agent with TCP/IP, HTTP and SNMP protocol
- RS232 + RS485 port with JBUS / MODBUS protocol

To check whether new, more up-to-date software versions are available and for more information about the accessories available, consult the website: www.riello-ups.com.

MONITORING AND CONTROL SOFTWARE

The **Powershield³** software provides UPS management, control and application shutdown, it ensures effective and intuitive UPS management by displaying all the necessary data values, such as input voltage, applied load, battery capacity.

The software can also automatically perform programmed shutdown/start-up operations, shutdown the operating system of the PC or file server it is running on, and send alarm e-mails, SMS and network messages when specific user-defined events occur.

Installation Operations:

- Connect the USB communication port on the UPS to a USB communication port on the PC using the cable provided.
- Follow the installation instructions.
- For more detailed information please read the user manual which can be downloaded from www.riello-ups.com.

Visit the manufacturer's website to check whether a more recent version of the software is available.

CONFIGURATION SOFTWARE

UPSTools software allows the user to configure the UPS and provides a full view of the UPS parameters and status through the USB port.

Refer to the **UPS Configuration** section in the UPSTools manual for a list of the possible configurations available.

Installation operations:

- Connect the USB communication port on the UPS to a USB communication port on the PC using the cable provided.
- Follow the installation instructions shown within the software manual which can be located in the UPSTools directory or downloaded from the web site www.riello-ups.com.

Visit the manufacturer's website to check whether a more recent version of the software is available.

UPS ACOUSTIC SIGNAL TABLES

Signal	Cause	Solution
1 beep every 4 seconds	The UPS is operating in battery mode	Check the input voltage
1 beep per second	The battery is discharging	Save your work and switch off the equipment
	Overload in output	Check the charge level indicator and remove some loads
Continuous beep	The UPS has a fault	Check the indicators table and contact the reseller if necessary

UPS ALARMS TABLE

Problem	Cause	Solution
The UPS does not start up when "ON" is pressed	The power cable is not connected correctly	Check the power cable connection
	The wall socket may be faulty	Please contact a trustworthy electrician
	The UPS output may have short-circuited or be overloaded	1. Disconnect all the loads and ensure that there is nothing short-circuiting the output 2. Ensure that the loads are not isolated or short-circuited internally
	An internal fuse may have blown	Please contact the reseller
The UPS is not powering the loads	There may be no output voltage in the socket used	Check the output fuse (if present)
	There is no output voltage on the sockets	1. Check the connection cable 2. Ensure that the load does not exceed the UPS's maximum capacity
The battery has reduced its back-up time	The battery is not charged	Recharge the battery for at least 4 hours
	It may not be possible to fully recharge the battery.	1. Recharge the battery for at least 8 hours 2. Replace the battery
The UPS fault indicator  is on	The UPS has a fault	Save your work and stop the equipment. See the LCD INDICATOR PANEL for details.
The battery fault indicator  is on	The battery is faulty	1. Check the battery connection 2. Please contact the reseller to order a new battery to replace the faulty battery.
The equipment connected to the UPS switch off	The UPS may be overloaded	Check the load status
	The UPS may be faulty	Please contact the reseller
The UPS emits a continuous beep	The UPS is in a fault state	Check the UPS acoustic signals table
The buttons do not work	The button is broken	Please contact the reseller

REPLACING THE BATTERY

When the battery fault indicator  illuminates and the UPS emits an intermittent beep (one second on/ one second off), the battery may need to be replaced. Check the battery connection or contact the reseller to order a new battery.

Warning: A battery is dangerous since it can generate an electric discharge or a short-circuit. The following precautions must be followed carefully before replacing the batteries.

1. Though the batteries can be replaced with the UPS on, it is recommended to switch the UPS off and unplug the power cable from the wall.
2. Remove any rings, watches and other metal objects.
3. If the battery replacement kit is damaged in any way or shows signs of leakage, contact the reseller immediately.

Recycle the used batteries.

Never throw batteries into a fire as they may explode.

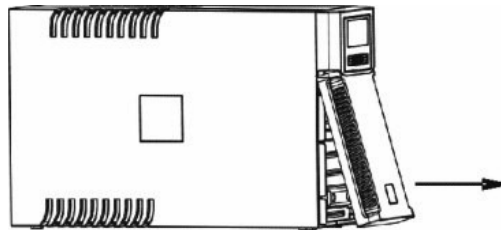
Do not open or damage the batteries. The electrolyte contents are harmful to the skin and eyes and may be toxic.

For correct recycling, do not throw the UPS, the battery box or the batteries into the rubbish. Contact the nearest waste recycling centre for information on how to dispose of the UPS, the battery box and the batteries.

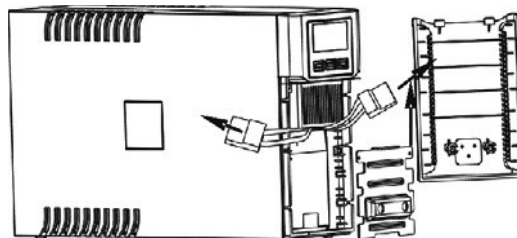
Follow the points and the table below to replace the batteries:

DIALOG VISION TOWER

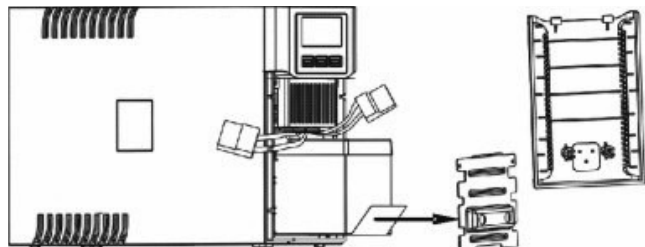
1. Remove the front panel of the UPS by pulling with both hands.



2. Disconnect the UPS battery cable. Remove the plate securing the battery to the UPS.



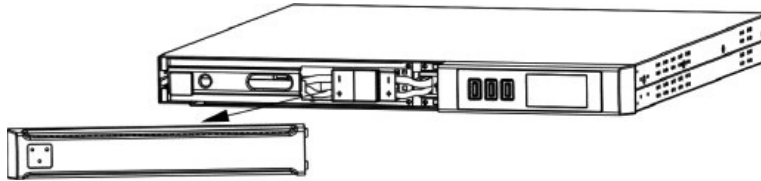
3. Take hold of the plastic battery tab and pull the battery out of the UPS.



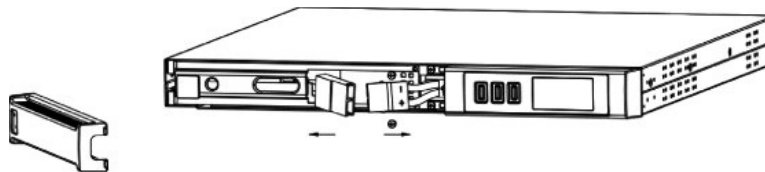
4. Insert the new battery in the UPS.
5. Reinsert the plate and reconnect the battery cable.
6. Replace the front panel of the UPS.

DIALOG VISION RACK

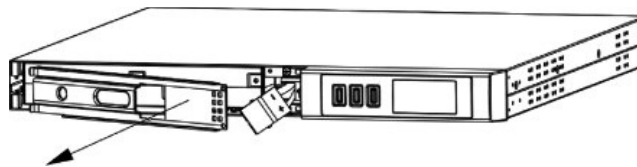
1. Remove the front panel of the UPS by pulling with both hands.



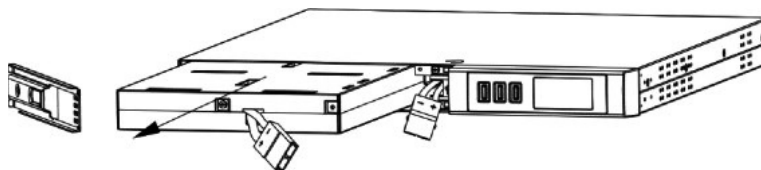
2. Disconnect the UPS battery cable.



3. Undo the screws securing the support to the UPS and remove the plate securing the batteries.



4. Remove the batteries on a flat surface.

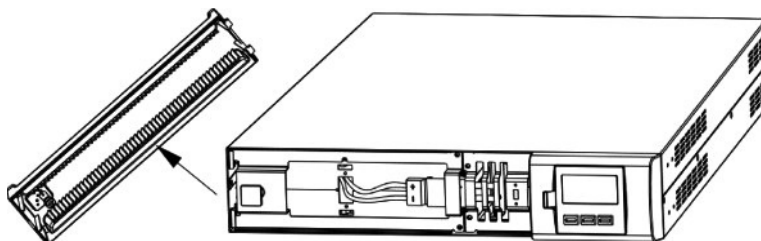


5. Insert the new batteries in the UPS.
6. Screw the battery support and reconnect the cable.
7. Replace the front panel of the UPS.

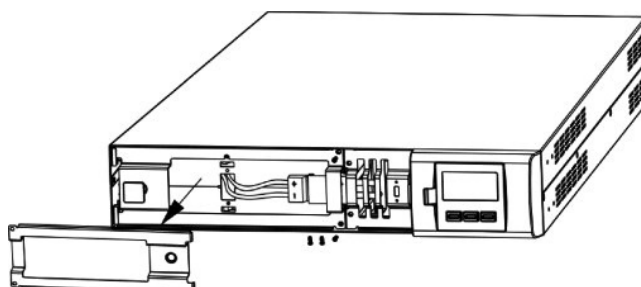
REPLACING THE BATTERY

DIALOG VISION DUAL

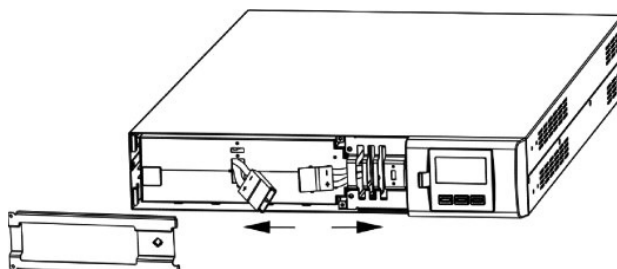
1. Remove the front panel of the UPS by pulling with both hands.



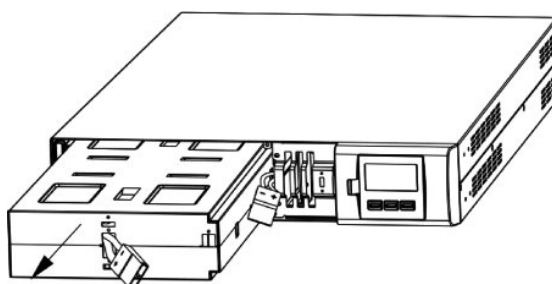
2. Undo the screws securing the support to the UPS and remove the plate securing the batteries.



3. Disconnect the cable.



4. Remove the batteries on a flat surface.



5. Insert the new batteries in the UPS.
6. Reconnect the battery cable and secure the support.
7. Replace the front panel of the UPS.

MODEL			Dialog Vision Tower				
			DVT 500	DVT 800	DVT 1100	DVT 1500	DVT 2000
NOMINAL POWER	VA		500	800	1100	1500	2000
	Watt		350	540	740	1050	1350
INPUT	Nominal voltage		230VAC ⁽¹⁾				
	Voltage range ⁽²⁾		160VAC ± 3%				
			294VAC ± 3%				
	Frequency ⁽²⁾		50/60Hz Automatic selection				
OUTPUT	Voltage stability (in battery mode)		230V +5%, -10% ⁽¹⁾				
	Frequency		50/60Hz Automatic selection (As selected for the input)				
	Frequency stability (in mains mode)		±0.1Hz				
	Waveform		Sinusoidal				
OVERLOAD	From mains power		>110% alarm and failure after 3 minutes				
			>150% failure after 5 cycles				
	From battery power		>110 % alarm and failure after 30 seconds				
			>120% failure after 5 cycles				
TRANSFER TIME	Typical		4-msec. (6-msec.max.)				
BATTERY	Nominal battery voltage		12V	24V	24V	48V	48V
	Recharge time		Less than 6 hours at 90%				
DIMENSIONS	UPS	Dimensions (LxHxD) mm	110X240X395			160X240X435	
		Weight (kg)	7	9	9	16	16
	Battery box		Not available				
ENVIRONMENT	Work environment		0- 40 °C, from 20 to 80% relative humidity (without condensation)				
	Noise		Less than 50dBA				
INTERFACE	RS-232		Yes				
	USB		Yes				
	Expansion slot		Yes				
	EPO		Not available				
OTHER	Protection devices		Excessive battery discharging – overcurrent – short-circuit – overvoltage – undervoltage – overheating				

SPECIFICATIONS

MODEL			Dialog Vision Rack			Dialog Vision Dual		
			DVR 500	DVR 800	DVR 1100	DVD 1500	DVD 2200	DVD 3000
NOMINAL POWER	VA		500	800	1100	1500	2200	3000
	Watt		350	540	740	1050	1540	2100
INPUT	Nominal voltage		230VAC ⁽¹⁾					
	Voltage range ⁽²⁾		160VAC ± 3%					
			294VAC ± 3%					
	Frequency ⁽²⁾		50/60Hz Automatic selection					
OUTPUT	Voltage stability (In battery mode)		230V +5%, -10% ⁽¹⁾					
	Frequency		50/60Hz Automatic selection (As selected for the input)					
	Frequency stability (In mains mode)		±0.1Hz					
	Waveform		Sinusoidal					
OVERLOAD	From mains power		>110% alarm and failure after 3 minutes					
			>150% failure after 5 cycles					
	From battery power		>110 % alarm and failure after 30 seconds					
			>120% failure after 5 cycles					
TRANSFER TIME	Typical		4-msec. typical 6-msec.max.					
BATTERY	Nominal battery voltage		12V	18V	24V	48V	96V	96V
	Recharge time		Less than 6 hours at 90%					
DIMENSIONS	UPS	Dimensions (LxHxD) mm	438X44.3X460 (19"x1Ux460)			438X87.9X582 (19"x2Ux582)		
		Weight (kg)	12	13	15	25	32	33
	Battery box	Nominal voltage				96 V		
		Capacity				9 Ah		
		Number of batteries				8		
		Dimensions (LxHxD) mm				438X87.9X582		
		Weight (kg)				30		
ENVIRONMENT	Work environment		0- 40 °C, from 20 to 80% relative humidity (without condensation)					
	Noise		Less than 50dBA					
INTERFACE	RS-232		Yes					
	USB		Yes					
	Expansion slot		Yes					
	EPO		Yes					
OTHER	Protection devices		Excessive battery discharging – overcurrent – short-circuit – overvoltage – undervoltage – overheating					

Notes:

⁽¹⁾ can be changed with UPSTools (200/208/220/230/240VAC)

⁽²⁾ some parameters can be changed with UPSTools